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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,978	07/23/2001	David Eric Zeidler	GEN-128	2285

23353 7590 07/18/2005

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EXAMINER

MANNING, JOHN

ART UNIT PAPER NUMBER

2614

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/909,978

Applicant(s)

ZEIDLER ET AL.

Examiner

John Manning

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 8-9 and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Shintani et al. (US Pat No 6,490,001).

In regard to claims 1, 8, and 15, Shintani discloses a receiving method and apparatus with a digital filter with coefficient memory for storing coefficient data. The claimed limitation of "a tuner for receiving a video input signal" is met by the digital tuner section 21, shown in Figure 1. The claimed limitation of "a video demodulation/descrambler decoder for receiving the video input signal from the tuner" is met by the demodulator subsection 222, shown in Figure 2. The claimed limitation of "a video processing subsystem for receiving the video input signal from the video demodulator/descrambler, the video processing subsystem including a video frequency response filter for adjusting a frequency response of the set-top terminal" is met by the channel equalizer 223, shown in Figure 2. "An output from the digital tuner section 21 is supplied to a digital demodulation processing unit which is formed of a front end section 22, a transport section 23 and an MPEG decoding section 24. As shown in FIG. 2, the

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front end section 22 is constituted of an A/D converter 221, a demodulation subsection 222, a channel equalizer 223, and an error-correcting decoding subsection 224. The output from the digital tuner section 21 is input to the A/D converter 221 of the front end section 22 to be converted into a digital signal" (Col 8, Lines 58-57).

In regard to claims 2, 9 and 16, the claimed limitation of "a microprocessor subsystem operatively coupled to the video processing subsystem, the microprocessor subsystem determining a set of filter coefficients for the video frequency response filter" is met by the control section 31, Figure 2. "The channel equalizer 223 functions mainly as a ghost canceller, and has a multi-tap digital filter. The control section 31 computes and sets suitable values supplied as coefficients (equalizer coefficients) to a plurality of multipliers of the digital filter of the channel. The channel equalizer 223 performs ghost cancellation by using these values" (Col 9, Lines 7-13).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani.

In regard to claims 3 and 10, Shintani discloses the use of a multi-tap digital with corresponding coefficients in a broadcast receiver. The reference is silent with respect

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to the multi-tap digital filter being a FIR filter. Official Notice is taken that it is notoriously well known in the art to use a FIR type digital filters so as to take advantage of the linear-phase properties (i.e. no phase distortion of the input signal). Consequently, it would have been obvious to one of ordinary skill in the art to implement Shintani's multi-tap digital filter as a FIR filter for the stated advantage.

5. Claims 4-5, 11-12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani et al. in view of Ozaki et al. (US Pat No 5,185,657).

In regard to claims 4-5, 11-12 and 17-18, Shintani discloses a receiving method and apparatus with a digital filter with coefficient memory for storing coefficient data. Shintani fails to explicitly disclose the determining the coefficients by empirical measurement of the degradation of the frequency or measuring the amplitude of a color burst signal. Ozaki teaches determining filter coefficients by the empirical measurements of the degradation (from noise) of the amplitude of a color burst signal so as to eliminate noise. "Subsequently, the amplitude signal corresponding to the color burst signal, from which the noise is eliminated, is supplied to the coefficient generating means capable of generating a coefficient in such a manner that a predetermined amplitude value is obtained when the value of the amplitude of the color burst signal, from which the noise is eliminated, outputted from the noise reducing means is multiplied by the coefficient. Thus, the coefficient is generated" (Col 12, Lines 6-14). Consequently, it would have been obvious to one of ordinary skill in the art to modify Shintani with determining the coefficients by empirical measurement of the degradation

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of the frequency or measuring the amplitude of a color burst signal for the stated advantage.

6. Claims 6-7, 13-14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani et al. in view of Takayama et al. (US Pat No 5,214,500).

In regard to claims 6, 13 and 19, Shintani discloses a receiving apparatus with a digital filter with coefficient memory for storing determined coefficient data. Shintani fails to explicitly disclose measuring the amplitude of a multi-burst burst signal. Takayama teaches measuring the amplitude of a multi-burst burst signal so as to measure a characteristic at a predetermined discrete frequency. "FIG. 3 shows the relationship between the measurement item examples and the test signals necessary for the measurement items. One example of the test signal in FIG. 3 will be discussed. A sweep signal is a test signal used to measure an amplitude characteristic of the composite signal outputted from the color encoder 10 or to measure a frequency characteristic at the continuous frequency. A multi-burst signal is used to measure a characteristic at a predetermined discrete frequency" (Col 6, Lines 5-14). "The multi-burst signal consists of a plurality of burst signals whose frequencies are different from each other and the burst signals are positioned within one line in time sequence. The multi-burst signal is proper to measure the amplitude/frequency characteristic at the predetermined frequencies. By adjusting the amplitude of each component signal of the burst signal to the predetermined ratio as discussed hereinbefore, the color encoder 10 produces the modulated multi-burst signal consisting of only the I-axis or the Q-axis signal. FIG. 5 shows the amplitude ratio among the component signals R, G and B for

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producing the modulated color burst signal of the I-axis signal shown in FIG. 6. In FIG. 6, a reference signal having a frequency 0.1 MHz is a reference to measure the amplitude/frequency characteristic at each the burst signal" (Col 7, Lines 44-59). Consequently, it would have been obvious to one of ordinary skill in the art to modify Shintani with measuring the amplitude of a multi-burst burst signal for the stated advantage.

In regard to claims 7 and 14, the combined teaching is silent with respect to the temporarily storing the input video signal for the measurement of the multi-burst signal by the microprocessor subsystem. Official Notice is take that it is notoriously well known in the art to store an input signal for measurement of the signal by a microprocessor so as to allow for comprehensive analysis of the signal in less than real time. Consequently, it would have been obvious to one of ordinary skill in the art to implement the combined teaching with the storage of input signal for measurement of the signal by a microprocessor for the stated advantage.

### ***Conclusion***


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 571-272-7352. The examiner can normally be reached on M-F: 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM  
July 5, 2005



**JOHN MILLER**  
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